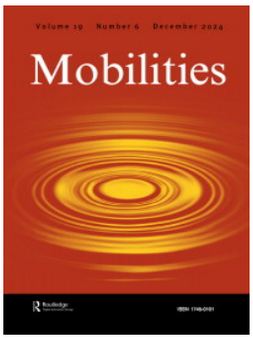

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Lived expertise of the structurally disadvantaged: towards a more just participatory transport planning process

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ABSTRACT

In response to the negative effects of the car-dominated transport sector, especially in urban areas, and wider attempts to tackle the climate crisis, cities are reallocating car-dominated areas to promote active mobility, leisure and urban green space. These reallocations often take an experimental character and are accompanied by participation processes. Increased citizen participation results from both a paradigm shift in urban planning and a discourse shift towards mobility justice, emphasizing procedural and recognitional aspects of the transport transition. However, participatory planning processes themselves are conflict-ridden. They are criticised for favouring a loud, priviliged minority. Based on the need for diverse knowledge for mobility justice, including lived expertise, this study examines reasons for (non-) participation among structurally disadvantaged groups in transport planning, using Berlin's Graefekiez neighbourhood as a case study. Focus groups were conducted with mobility-disabled people and women from a residential area with low socio-economic status. Our analysis revealed that non-participation was influenced by the feeling of being excluded and ignored. Simultaneously, the research format created was perceived as a welcoming space that better reflects the lived expertise of the neighbourhood and facilitates real exchange of perspectives. Based on this, recommendations are derived to improve participatory transport planning processes and the strengths of transdisciplinary projects.

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Lived expertise; participatory planning; street-space reallocation; mobility justice; transport governance

Introduction

The focus on private cars in urban transport planning has created a web of urban crises and injustices. Car-centric planning contributes to the climate crisis, deteriorates public health and places additional pressure on already scarce public spaces in urban areas. Furthermore, it amplifies disparities in how different groups are affected by the negative consequences of automobility (Gössling et al. 2019). In particular, inequalities in the affectedness of the negative externalities and access to transport services emerge along factors such as income, gender, place of residency, ethnic identity, disability or age (e.g. Ermagun and Tilahun 2020; Karner

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2018; Profillidis, Botzoris, and Galanis 2014; Turdalieva and Edling 2018), thereby reinforcing already existing societal patterns of inequalities and discrimination (Sheller 2018).

Growing awareness of ecological issues in particular has prompted several cities all over the world to reallocate car-dominated spaces to recreational areas, active mobility options and climate change adaptation and mitigation measures (Loorbach et al. 2021; Marcheschi et al. 2022). These reallocation efforts are often of an experimental nature (Bertolini 2020; Smeds and Papa 2023). Within these redesign projects, themes of public engagement and participation recur, reflecting broader shifts towards participatory discourse in urban planning governance (Braun and Könninger 2018). This shift also mirrors the discourse on transport and mobility justice, emphasizing that a just transition not only involves the question of the distribution of cost and benefits (distributional justice) but also questions the decision-making processes (procedural justice) and the perspectives and knowledge considered (recognitional justice) (Sheller 2018; Verlinghieri and Schwanen 2020).

To address mobility justice, Karner et al. (2020) advocate for society-centric planning approaches that require discourse between planners and the public. A space for discourse can either be initiated by public actors like municipalities (invited spaces) or initiated by civil society actors and brought to state-actors (claimed spaces[1]) (Gaventa 2006).

Despite the potential benefits of society-centric planning approaches to consider different knowledge and interests, citizen participation for redesign projects often appears to be fraught with conflicts, as noted by Vitale Brovarone, Staricco, and Verlinghieri (2023) and Klaever, Goetting, and Jarass (2024). Invited participatory planning approaches, in particular, provide a space in which people for whom the project is important feel heard, thereby neglecting certain voices who do not feel heard within these invited spaces (Klaever and Verlinghieri 2024). Therefore, the participatory processes do not appear as a genuinely inclusive effort to consider the interests and knowledge that have so far received little attention and have even been societally disadvantaged.

Moreover, academic critiques highlight how these participatory processes often reproduce existing power asymmetries and rely heavily on expert knowledge, with a focus on consensus and negotiation logic (Hillier 2003). Consequently, mobility injustices can persist through participatory planning approaches designed to address them, particularly in the context of transport transitions. One significant factor contributing to this persistence is the exclusion of certain groups and voices, as the interests and knowledge expressed in these processes are partly determined by the participants (Arnesen and Peters 2018). In other words, participation within these spaces is a precondition for knowledge and interest consideration.

While Cook and Butz (2019) point out the frequent neglect of local mobility needs in planning processes, including the ones of the most affected as, for example, disabled people, Barbarino and Seydel (2024) determined that people with migration backgrounds are underrepresented. The issue of underrepresentation of certain voices, which is also linked to the above-mentioned factors influencing affectedness of private automobility, extends beyond mobility-related participation to political participation in general, where well-educated individuals and men are more likely to be politically active (e.g. Coffé and Bolzendahl 2010; Schlozman et al. 2018 Walgrave, Wouters, and Ketelaars 2022).

In order to mitigate issues such as elite capture (Remme, Sareen, and Haarstad 2022) and the silencing of certain voices in participatory transport planning, we take up Klaever and Verlinghieri's (2024) call to consider 'who is (not) in the room'. We argue that a better understanding of (non-) participation of voices which are (I) societally disadvantaged, (II) particularly affected by the negative externalities of private automobility and (III) rarely heard in invited spaces – in the following referred to as structurally disadvantaged – is crucial for achieving mobility justice. Integrating multiple perspectives, knowledge and interests, especially those of structurally disadvantaged groups, and adopting an intersectional perspective is essential for just transition processes (Sheller 2018). In addition to the understanding of barriers, we ask how these barriers can be reduced.

The paper is based on an in-depth qualitative analysis of focus group discussions with structurally disadvantaged groups, following the participatory processes of the Graefekiez project in Berlin. By using Verba, Schlozman, and Brady's (1995) Civic Voluntarism Model (CVM) as a conceptual heuristic, we aim to better understand (non-) participation of mobility-disabled people and women from a neighbourhood with a low socio-economic status in invited spaces of the transport transition and explore ways to improve participatory transport planning. In line with other researchers (Berne et al. 2018; Lowe, Barajas, and Coren 2023), we aim to emphasize the importance of including diverse and so far underrepresented groups and their lived expertise in our studies. In this way, we nuance both our understanding of barriers to participation and ways to consider different knowledge in planning processes.

Literature context

Conceptualizing knowledge of structurally disadvantaged groups in participatory transport planning

Given the challenges and critiques highlighted in invited participatory planning, especially in relation to structurally disadvantaged groups, it is imperative to reflect on the research norms within the field of transportation. Transport and transport transition research is heavily influenced by engineering and economics, often emphasising technical and descriptive, quantitative knowledge (Kębłowski and Bassens 2018). Within the old, linear planning paradigm, solely these types of knowledge were considered within planning processes (Sheller and Urry 2016). However, with the discourse shift towards participatory planning and transport and mobility justice, the old planning paradigm seems to be dissolving. Recent research has highlighted the importance of considering and valuing different forms of knowledge in transport planning, particularly those belonging to disadvantaged groups (Lowe 2021).

More generally, Vigar (2017) distinguishes between technical knowledge, local knowledge of lived experience, practice knowledge and political knowledge. Local knowledge is derived from lived experiences and is often referred to as lived expertise (see also Cataldo et al. 2021; Gough 2021; Lowe, Barajas, and Coren 2023). 'There is a great deal of people's input to this, which is impossible to know from afar. In short, it encompasses what people value as well as what they 'know'. To get a good sense of it requires talking, and crucially listening, with particular groups' (Vigar 2017, 41).

Incorporating the lived expertise of structurally disadvantaged groups, as Lowe, Barajas, and Coren (2023) argue, helps to identify barriers and distributive injustices that are often not captured by conventional knowledge production in transport accessibility. We go a step further and argue that lived expertise is not only important for addressing distributive injustices, but is also fundamental for achieving procedural and recognitional justice as part of mobility justice and incorporating epistemic justice (Lowe, Barajas, and Coren 2023; Sheller 2018; Smeds et al. 2023). One place where lived expertise can find its way into transport planning processes is in invited participatory spaces. Here, the knowledge and interests of the participants come to the fore.

With this understanding of the interplay of invited spaces, lived expertise and mobility justice, we emphasise the need for inclusive processes to ensure comprehensive knowledge, particularly in society-centric participatory transport planning approaches. In doing so, we support not ony Klaever and Verlinghieri's finding to 'go beyond invited spaces to include claimed spaces both spatially and temporally' (2024:1) but also Lowe, Barajas, and Coren's (2023) assertion that the inclusion of the lived experiences of structurally disadvantaged people is essential to achieving epistemic justice, which is a key element of procedural and recognitional justice in mobility transitions, as proposed by Sheller.

But in order to better incorporate lived expertise in transport planning processes, locals need to come to the places where planners are trying to capture this knowledge in the first place, which have so far been invited spaces. In these places, people must feel encouraged to speak out and feel heard.

Explanatory approach for (non-)participation

In political science, the Civic Voluntarism Model (CVM), developed by Verba, Schlozman, and Brady (1995) and further elaborated by Scholzman et al. (2018), is a widely used theory to explain political (non-) participation. The theory assesses the influence and relationship of three key factors affecting (non-) participation in political activities and can thus also be used to explain (non-) participation in participatory, invited spaces. These three factors of the model are, firstly, resources such as income, time and civic skills; secondly, psychological engagement, which captures the interest in politics and political efficacy; and thirdly, the recruitment network. The recruitment network covers the social or digital networks where people get the information on the participatory events.

According to this model, for example, citizens with higher socio-economic status, characterised by higher income and education levels, are more likely to engage in participatory processes (e.g. Marien, Hooghe, and Quintelier 2010; Rottinghaus and Escher 2020; Verba, Schlozman, and Brady 1995). One possible explanation is that individuals develop civic skills through different educational institutions over their life span (Schlozman et al. 2018). These civic skills appear to be a fundamental prerequisite for political participation. Given this model, it is less surprising that within participatory planning, people with a migration background (Barbarino and Seydel 2024) or people with disabilities (Andrews, Clement, and Aldred 2018), for example, are underrepresented.

Götting and Becker (under review) empirically demonstrated a positive influence of political interest – a CVM variable – on political participation using a survey centered on a urban space redesign scenario. They furthermore suggest that there is a need to combine CVM with the Theory of Planned Behaviour (TPB), an individual-focused psychological theory considering the attitude towards participation, social norms and perceived behaviour control.

However, with this rigid focus on the three factors, and even its extension with the TPB, non-participation is explained as a linear result of individual preconditions. In contrast, we, as well as Klaever and Verlinghieri (2024) and Najemnik (2021), want to stay open for other dimensions influencing participation and thus argue for a more relational approach to individuals and their resources in a social context. Thus, in contrast to the deterministic psychological approach, we use the CVM more as a heuristic, to gain deeper insights into the reasons for (non-) participation of structurally disadvantaged groups. We test out this approach by applying it to the context of invited participatory spaces of a redesign project in Berlin.

Research context: redesign project in Berlin

In 2023, the local municipality[2] of the district Friedrichshain-Kreuzberg in Berlin, Germany, initiated a six-month project[3] in the Graefekiez neighbourhood, repurposing around 400 car parking spaces. In the core area of the Graefekiez project, consisting of two streets, the repurposing included converting some parking spaces into green spaces or parklets, managed jointly with and under the responsibility of local residents. In addition, sharing stations (car-, scooter- and bike-sharing) and delivery zones were established not only in the core area but also throughout the neighbourhood (see Figure 1). The main objectives of the redesign of the parking areas were to improve school route safety and contribute to Berlin's climate neutrality goals by 2045 (EWG Bln 2016), while also adapting to climate change.

In addition to the local municipality, different actors were involved in the project: under the lead of the Berlin Social Science Center, the whole process was monitored and scientifically evaluated by various scientific institutions, including the author's institutions (for further research see Borcherding and Knie 2024). A participation consultancy facilitated the participation processes to include residents' perspectives on the project and its measures[4]. After six months, all findings from scientific research and the participation processes were compiled and presented

to the district councillors' assembly (BVV) (see Figure 2). Based on the findings, the municipality's governing representatives positively evaluated the project. The implemented redesign measures are to remain in place unless the BVV decides to dismantle them.

Figure 1. The street space reallocation. Photos by the authors.

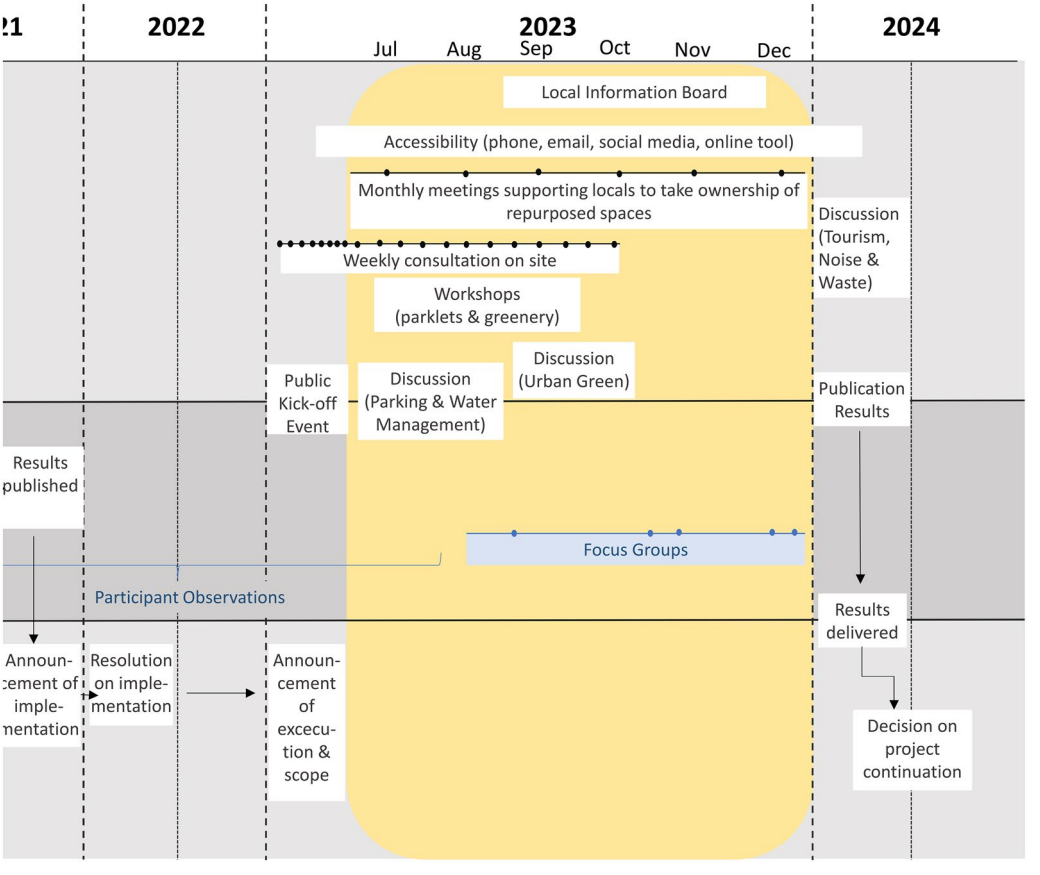

Figure 2. Timeline of participation formats in the Graefekiez project. Author's graphic.

Participation formats in the project

To provide a comprehensive understanding of the results presented in this paper, it is essential to consider the context and modes of participation implemented by the project. Two years before the project's initiation, a representative online and street survey was conducted in consultation with the municipality. This study aimed to explore attitudes towards redesigning street space to the detriment of car traffic (Ruhrort, Zehl, and Knie 2021). The survey presented various scenarios for the future of public street space. The preferred scenario was presented to the BVV for consideration and democratically voted upon in June 2022.

Between this decision and the actual start of the project in July 2023, there was not much official information from the municipality itself, besides articles in local newspapers. Shortly before and after the project's initiation, various information and discussion formats were organized, including websites, flyers, information events, and neighbourhood consultation hours. These initiatives aimed to inform residents about the project and to gather their feedback and concerns and were organised by the participation consultancy and partly by the scientific actors. Residents were encouraged to take ownership of redesigning parking spaces, with support from the participation consultancy. The time-bound nature of the project itself also serves as a form of participation, as decisions on project continuation are based on the results of the scientific and participatory efforts and are subject to democratic votes within the local council.

The described participation formats align with the different modes of participation presented in, for example, Arnstein's ladder of participation (1969). This model categorizes participation formats according to the degree of influence in and power over a process. They can range from informative (one-sided information)and deliberative (consultation, placation or discussion formats) – both described as degrees of tokenism – to collaborative approaches (citizens are given power and control over certain processes). Most of the participation formats within the Graefekiez project can be categorized as rather informative or deliberative, and the redesign of the parking spaces can be classified as a collaborative approach, except for the delivery and sharing stations.

Graefekiez

The Graefekiez is a vibrant neighbourhood in the district of Friedrichshain-Kreuzberg, characterized by a high population density (14.427 inhabitants/km^2) (Ba 2019). It is home to approximately 19,000 people and is known for its lively atmosphere with many cafés, restaurants and bars, shops, apartments, offices, workshops, schools and kindergartens. Described as cosmopolitan, young and colourful, the Graefekiez is a popular destination for tourists and residents from other districts, making it a sought-after residential area.

The neighbourhood is diverse, with 27.1% of residents holding foreign citizenship (compared to the Berlin average of 18.5%) (Kiezatlas 2017) and 46.6% having a migration background (compared to the Berlin average of 34%) (Qanjary 2020). Among those with a migration background, 36.3% originate from EU countries, 21.3% are of Turkish and 12.3% are of Arab descent. The average age in Graefekiez is 38.7 years, with a relatively small proportion of residents over 65 (9,9% versus 19% Berlin average) (ibid.). In 2017, 17,100 people in the district were registered as having a severe disability (Senatsverwaltung für Gesundheit, Pflege und Gleichstellung 2019).

According to Berlin's Environmental Justice Atlas (Senatsverwaltung für Umwelt, Mobilität,Verbraucher- und Klimaschutz 2022), the Graefekiez shows a medium-scale level of social inequality and disadvantages. Challenges include the inadequate supply of green spaces, the poor bioclimate and air pollution. Notably, there is a socioeconomic discrepancy between residents of Graefekiez-Süd and Graefekiez-Nord. The former is located in the core project area and its residents tend to have a higher socio-economic status. Graefekiez-Nord is dominated by the so-called Werner-Düttmann Siedlung (WDS). The WDS is a settlement of social housing where 62.1% of residents are dependent on state support and have low, no or unrecognized

school qualifications. In addition, 75.19% of the residents have a migration background (predominantly Turkish, Kurdish or Arabic) (NHU 2024). The WDS is located outside the core project area, but still in the Graefekiez neighbourhood.

Method

Participant observations during the information and discussion formats indicated a predominantly homogenous group in terms of certain sociodemographic variables, being predominantly white or-white passing, middle-aged and non-disabled. The analysis presented therefore focuses on the perspectives of structurally disadvantaged groups. To gain insights into these perspectives, focus groups were conducted with two groups: (a) mobility-disabled people[5] (FG1) and (b) women from the WDS (FG2). These two groups were selected for three reasons: first, their vulnerability to societal discrimination patterns and their exposure to the negative externalities of the transport sector; second, their underrepresentation in political participation processes as invited spaces; and third, their observed underrepresentation in participatory spaces of the Graefekiez project.

Focus groups are facilitated group discussions centred around a specific topic (Krueger 1994). The research method is particularly suitable for structurally disadvantaged groups in terms of creating safer spaces and dealing with potentially sensitive content. Three rounds of focus groups were conducted, each lasting two hours. The semi-structured discussion of the first round was inspired by the CVM but left enough space for the participants to shape the process themselves. At the end of each session, as part of the discussion, we asked for feedback. The third focus group round was conducted to present and discuss the findings of the former two sessions to provide room for collective evaluation of the research process. Ethics clearance was obtained from the official Ethics Committee of the Berlin Social Science Center (WZB) No. 2023/09/212.

Participants and recruitment process

For both groups, residency in the neighbourhood was an important inclusion criterion. For FG1, a further inclusion criterion was participants' self-assessment that they are mobility-disabled, either in terms of movement, vision, behaviour or understanding (orientation). Exclusion criteria included dependence on legal representatives, being under 18 and, as the workshop was held in German spoken language, a lack of fluency in German. For FG2, additional inclusion criteria included affiliation with the WDS and identifying as female. Exclusion criteria were being younger than 18. A migration background was not mandatory.

The recruitment process began in February 2023, engaging with locals involved in social and neighbourhood activities to identify historically underrepresented and disadvantaged groups. This identification informed the targeted participant recruitment process. Various channels and strategies were utilized for recruitment, including online and social media outreach, a neighbourhood-wide flyer campaign in August 2023 and building connections by visiting existing community spaces, such as a local weekly women's breakfast. Recruiting mobility disabled participants was swift and generated significant interest. In contrast, forming the womens' focus group required more time and relational work.

Procedure and sample description

Between August and December 2023, we conducted two rounds of focus groups for each of the two groups. A third round was held to present and discuss our findings (see Figure 2). Participants received a 50 euro expense allowance for the first two sessions.

Focus group locations were chosen within the neighbourhood to reduce physical barriers and provide a familiar, safer environment. For the women in the WDS, we used the local

neighbourhood drop-in centre where the weekly women's breakfast is held. For the mobility disabled people, we chose the community room in the local elderly home to ensure a barrier-reduced environment. We held the third round in the community room of the local church.

Initially, moderation was outsourced to an external moderator. However, after the first round, we took over the moderation ourselves to create a space with fewer people and reduce perceived hierarchies.

FG1 consisted of elderly individuals and physically disabled people, both feeling disabled in their mobility (mental disabilities were not included). The number of attendees ranged from 17 (in the first round) to 8 (in the second). The reason was an over-recruitment and that more people came to the first round than were actually registered. Therefore, three follow-up interviews were conducted after the first round. The group had equal gender representation and most participants were over 40 years. FG2 comprised 9 participants aged 20 to 50, most with a migration background and bilingual in German and Turkish, Kurdish or Arabic. During the focus group people would translate amongst each other.[6]

Analysis

The focus group recordings were transcribed, anonymised and analysed using inductive-deductive qualitative content analysis according to Gläser and Laudel (2009). Coding was carried out by the authors using the software Max-QDA. The deductive codes are based on the three factors of the CVM and their subcodes, as this is the most widely used explanatory approach for (non) participation. However, as explained above, we used the CVM primarily as a heuristic and also inductively identified additional codes from the empirical material that were discussed in peer debriefings. A detailed description of the coding scheme can be found in the Supplementary Material (A1).

Results: barriers to participate for structurally disadvantaged groups

When investigating how structurally disadvantaged groups perceived the invited spaces within the Graefekiez project to better understand their decisions to (not) participate, participants pointed out a multitude of reasons. The most salient themes across all focus groups were those that can best be characterised as barriers to participation. We found a range of individual and structural dimensions that influence the perceptions and decisions. Although not every person in every group experienced each of these barriers, the findings below illustrate the range of challenges that focus group members face in participating in invited spaces of participatory transport planning.

Feeling excluded

Participants felt excluded from the participatory spaces, a sentiment that appears to result from a complex interplay between organizational factors within participatory settings and individual preconditions. One organisational factor contributing to this feeling of exclusion is the lack of or delayed information about the redesign itself and participatory opportunities, fostering feelings of not being wanted in the process. One participant elaborates on the information situation as follows:

> 'The people involved, we, have not really been informed. The man or women in Pankow [other district in Berlin] knows just as much about the project as we do here. And we are actually affected. And there aren't so many of them [affected people] that one could not have informed us.' (Taylor)[7]

However, this lack of information does not seem to be an excuse for non-participation. Participants in both focus groups showed political interest. In particular, the mobility-disabled people showed great interest in local, political processes and in the project itself. 'I have been engaging in political processes here in the neighbourhood for 20 years on all sorts of things. […] The improvement of mobility was also part of it' (Dominique, FG1). Overall, most of the participants in this focus group seem to be well aware of and active in local political structures and processes. In contrast, the women from the WDS do not actively seek to engage in political processes (other than voting). However, when they are aware of opportunities to share their own perspectives and do not feel excluded from these opportunities, they use them because they are interested in contributing, as one participant elaborated:

> 'After it [the redesign] started, we noticed that news channels had come here and wanted to record us somehow and ask questions. My father went straight down there, […] because he wanted to talk to someone and didn't approve of it [the redesign], so he gave his opinion. […] Exactly. Some others [neighbours] went down and expressed their opinion on it, too. So that was the only possibility when we could talk and contribute, I think.' (Tracy, FG2)

This quote illustrates that despite the theoretical availability of information (see Figure 2), it did not reach participants' families, despite their interest and commitment to get involved. The only information that reached them was the petition against the project, issued by the opposition party (CDU) but no official information by the municipality or the project actors themselves.

This observation underlines the importance of social recruitment networks, another key CVM factor alongside political interest, for obtaining information about the participatory spaces. Interestingly, participants acquired information about the project and participation opportunities mainly through places and activities in the neighbourhood or through friends (neighbourhood garden, café, sport events). Especially for women from the WDS, social media and group gatherings play a vital role in disseminating information. In contrast, mobility-disabled participants relied on more traditional media such as newspapers or radio for local and political change processes. So, it was not the political interest per se but also organisational factors of the project such as the delayed information paired with the non-targeting of specific social recruitment networks which led to a feeling of exclusion of the participants.

Besides political interest and social recruitment networks, other individual circumstances seemed to influence participants' decision to (not) participate. The presence or absence of specific resources, to use the terms of the CVM, contributed to the perception of participation. For instance, time constraints emerged as a major barrier, with mobility-disabled individuals citing health issues as impediments to timely engagement:

> 'So earlier, in preparation for our conversation, I pulled out a flyer that I had actually received, but unfortunately only discovered far too late. The problem for me over the course of the year was that I was somehow overwhelmed by my health, so to speak. And I simply put a lot of post aside for the time being so that I could open it at some point. And in that respect, the Hey Graefekiez project really did pass me by. Although I actually think it's a great idea.' (Alex)

Similarly, caretaking responsibilities for children or family members and contract labour were reported as constraints. One person also emphasised that they were unable to attend the events due to official appointments for public benefits (FG2), which touches on the financial factor included in the CVM. Accordingly, the decision to participate also seems to require a certain degree of flexibility to organise one's time freely.

In addition, relevant resources seem to be knowledge and communication skills, as participants feel they are prerequisites for the invited participation spaces. For example, the women from the WDS expressed discomfort in discussing political matters because of language barriers and because it is a male-dominated topic. Thus, it is not only a missing individual resource but they seem to have learned that they do not have this resource at their disposal, which contributes to their absence from certain topics and spaces. This points to the limitations of the

solely individual explanatory approach of the CVM. However, as one woman elaborates, she is willing to learn: 'I like discussing, but I'm not that good at it now. But I would really like to discuss more.' (Tracy, FG2). Another barrier is the academic vocabulary used by the actors involved. Regarding the language used, one person says '[t]hese citizens' initiatives, who are also good at talking' (Dominique, FG1). This perceived distance to the actors created through language seems to foster feelings of exclusion.

Feeling ignored

For many participants, there is a sense that their actual needs, perspectives and everyday experiences will be ignored within invited participatory spaces, even if they did attend them. This feeling of ignoring the lived expertise within participatory spaces seems to have influenced the decision to not participate in the invited spaces of the Graefekiez. For mobility-disabled people, participants emphasised that their actual infrastructural needs are not taken into account, despite having practical knowledge on how the infrastructure could be improved in order to get around more easily. One participant explains the ignorance towards their needs and knowledge as follows:

> 'It [the redesign] is all about young, healthy people, everything is oriented towards young healthy, tourists, young healthy, everything is young healthy, and the others fall behind.' (Dominique, FG1)

Not only does there seem to be a feeling that only the physically-able and socio-economically privileged voices and needs are acknowledged in the invited spaces, but that the attendance and contributions of the lived expertise of structurally disadvantaged voices are not met with genuine interest.

> 'And, of course it [citizen participation] should play such a large role that you also feel that you are perceived as a representative of a smaller interest group and that the interests of these smaller groups are also taken into account. And not just somehow on paper, but that they are actually reflected in the design.' (Shay, FG1)

What we capture as 'feeling ignored' seems to stem from a dynamic interaction between former negative participation experiences and the perception of local politics. As mentioned above, many of the participants are politically interested and especially the mobility-disabled participants have previously participated in many different local participatory spaces. 'We have been trying for years to have a say when a building is being build, when a playground is being built, so that it is perhaps built a bit more inclusively' (Ulli, FG1). But these attempts to contribute their lived expertise to create more inclusive infrastructures seem to be negative experiences. Negative political self-efficacy occurs, as becomes apparent in the statement:

> 'I have been working politically for years, because you [moderation] say "codetermination" That makes me angry, because I've been talking to and against walls for years. […] in the meantime, I no longer speak.' (Dominique, FG1)

The person further elaborates on the reasons why they are no longer participating, using an example of an experience at the BVV:

> 'I no longer go to the BVV. I was so humiliated and insulted. If you criticise and say something, calmly and objectively, you have to put up with the mayor/[who says:] "If you don't like it, why don't you move to Zehlendorf [other district in Berlin]?" I was treated like/I couldn't take it any more at some point, others couldn't either. They gave up in resignation. If they could, they moved away and otherwise they got sick. They all fell off their chairs in BVV meetings. They were demolished.' (Dominique, FG1)

These negative experiences in participatory spaces, illustrated by negative political self-efficacy, also seems to interact with perceptions of local politics. The relevance of local politics for action – in our case non-participation – becomes particularly evident in the dwindling and lack of trust in the local politics.

> 'I thought I could still say something [in the participatory spaces], but unfortunately that was a deception. […] Any shoe salesman can confirm it. Nothing is harder to get back than lost trust. What else am I supposed to believe [person from municipality]? Well, I don't think I have to believe them anymore. And many people do not believe them. And yes, I don't know why they [local politicians] are surprised that it is not accepted. And apart from that, there really are some technical flaws.' (Taylor)

This described dwindling of trust in local politicians and processes of local politics – in this case in the form of invited spaces – lies in the discrepancy between words and actions. The actors of the field of local politics, especially the green party, are perceived to solely fulfil the requests of their voters, because 'a cliental policy is being pursued, but it misses the reality of many people's lives' (Shay).

This rather negative overall perception of local politics seems to influence the perception of the effectiveness of participatory planning more generally. Due to a lack of trust, some announce a broader critique on participatory planning as 'we don't just want to have a say, we want to participate and influence' (Ino, FG1). Invited participatory spaces are perceived as a 'friendly side offer' (Taylor), where 'nothing fundamental could be decided' (Alex).

Reducing barriers

Besides the identified barriers for participation, participants elaborated on recommendations to improve participatory transport planning. These recommendations included aspects ranging from better information to more equal socio-demographic representation and the equal distribution of speaking time between participants; however, they primarily focused on outreach participation programmes. Participants suggested to reach out to schools, bars and elderly homes, and to attend existing neighbourhood meetings such as the regular women's meeting in the WDS. Recommendations were made not only about the location (where) but also the format (how to reach out): different groups have different ways of connecting and sharing information. In the WDS, information spreads through the neighbourhood through specific people (e.g., the people who organize the neighbourhood drop-in center) or specific social media channels (e.g., WhatsApp groups).

One participant elaborated on their thoughts regarding the outreach participation programmes:

> 'And then you have to think about who is affected and how? And you can think about that beforehand, right? What groups are there and what does that mean for the individual groups? And I don't think that actually happened in any real depth (before the Graefekiez project). And the next step is then with these groups, and I mean, that's what you are doing now, right? But the construction work is already underway, right? […] Talking to these groups about what means what to them? And how does it impact their lives? And that's for sure, some people use their car every fortnight […] but for other groups it can jeopardize their livelihoods or jobs.' (Alex)

Interestingly, in addition to participatory outreach formats, the elaboration above also refers to the focus groups. Despite being initiated as a research format, participants perceived the focus groups as a participation instrument within the scope of the project. Focus groups, according to one participant, are a better participatory method, because they feel welcomed in the discourse space:

> 'When it says it's about the neighbourhood, the development of the neighbourhood. If I were to take part and a discussion were to take place, then all the residents would have to come out. Even the older residents who can't go downstairs. Even the disabled people would have to be heard. Even the mums who are stuck with their children. Without them, the word neighbourhood doesn't come into its own for me. The word 'neighbourhood' is more important to me here [in the focus group] and that's why I decided not to take part in the discussion.' (Tjade, FG2)

The research focus groups initiated were perceived not only as a space for discourse and participation within the project setting, but also as a space in which one's own lived expertise could be shared with people with similar expertise, something that was not expected to be possible within the conventional invited spaces on offer:

> 'So, I definitely thought it was good that people and/or a certain group of people should be involved in a discussion about how the design of the Graefekiez neighbourhood is progressing here. And, yes, I was definitely hoping to be able to say what I think. What I think about it. And, yes, that/And I also found it exciting in any case, or rather before that I thought it would be interesting to hear what other people with similar challenges have to say about the development here. And yes, in that respect my expectations were met.' (Shay)

Based on these observations, participants of the focus groups do feel recognised and acknowledged. Furthermore, it seems that due to their similar expertise, they also felt more welcomed because there were fewer language and knowledge barriers perceived.

Discussion

In line with the mobility justice framework, we have argued that integrating lived expertise, particularly that of structurally disadvantaged people, is essential to achieving mobility justice. Integration adds nuance and complexity to the intricacies of participatory transport planning. Our analysis offers unique perspectives on transport and participatory planning, shaped by the experiences and knowledge of participants, revealing barriers and needs that often go unnoticed by more privileged groups, and could contribute to more just participatory transport planning in light of the transition to sustainable cities.

Our results of Graefekiez's participatory process reveal a multitude of individual and structural barriers perceived by the structurally disadvantaged. In addition to the relevance of the projects to individuals and their social networks as well as the feeling of being heard, as emphasised by Klaever and Verlinghieri (2024), we further elaborated on the interaction of the feelings of exclusion and being ignored that determined the decision not to participate in the invited spaces of the municipality.

Feeling welcomed in invited spaces

Participants indicated that they felt excluded from the participatory spaces they were invited to. This feeling of exclusion resulted from a complex interplay between organisational factors of the participatory settings and individual preconditions. The influence of the organisational factors of the participatory events on the perception of participatory spaces has already been emphasized by Jurburg et al. (2019). The way information about participatory events was distributed, the language used or the timing of the events were the dominant organisational factors criticised. Individual pre-conditions coincide with factors of the CVM. As noted by Schlozman et al. (2018), the available time is associated with life circumstances. We showed that time is not only influenced by working hours and caregiving responsibilities, but also by individual health conditions. Mobility disabled people underlined not having the time to read/inform themselves. When observing that disabled people can have different time perspectives and needs, Kafer (2021) refers to 'crip time', a concept challenging rigid time constraints and opening up space for individual experiences of time.

These observations open up discussions on whether invited spaces, even with the best form of announcement, will ever be a place where people with less time will participate. Similar considerations apply to language and knowledge. The women of the WDS in particular felt that there is an expected language and knowledge required for invited spaces from which they felt excluded. Even if the participatory formats were translated into barrier-free languages and do

not require prior knowledge, people might not come because of their expectations of what kind of 'intellectual performance' is happening and required in these participatory spaces. These considerations do not mean that no attempt should be made to address the barriers, as suggested by for example Serrat et al. (2017), but rather, we argue, that if a society-centric planning approach to planning is to be adopted, the teams carrying out participatory formats should diversify, and that invited spaces should be complemented by outreach participatory formats that meet people in their individual and everyday lives, as also argued for by Klaever and Verlinghieri (2024). Similarly, in the context of water supply, Ntwana and Naidoo (2024) also argue in favour of considering claimed spaces.

Feeling acknowledged in invited spaces

The expectations of resources required within participatory spaces, independent of the participants' own resources, points out the limitations of the rather deterministic, political-explanatory approach of the CVM. Our heuristic application of CVM, applied to public space redistribution, allowed for a broader scope of inquiry and helped identify the prevalent feeling of being ignored among participants. This explanatory dimension of (non-) participation, which includes the embeddedness of individuals in their social context and their experiences with and perceptions of local politics (see also Najemnik 2021), emerged prominently. Participants felt that their contributions were not taken seriously despite their official involvement in participatory processes. This sentiment questions the authenticity of participatory spaces and highlights issues of epistemic injustice (see also Klaever and Verlinghieri 2024).

Our findings indicate that respondents do not perceive the invited participatory spaces as genuine tools for participation but rather as mechanisms for endorsing predetermined outcomes or spaces which only generate room for deliberation of rather privileged perspectives. Contrary to the concept of society-centric planning approaches, where community voices should fundamentally influence the process, mistrust in the invited spaces as well as local politics was evident. This leads Clausen, Rudolph, and Nyborg (2021) to perceive the invited spaces in Denmark's wind turbine planning as places of power. Abdelnour and Abu Moghli (2021) and Rashid (2022) describe this as harm inflicted on fragile individuals by those in power. This situation raises critical questions about the interplay between representative and direct democracy. This leads Willis, Curato, and Smith (2022) to propose the integration of deliberation-based reforms, such as mini-publics, into democratic systems, which are able to open up broader questions and not solely the redesign of local scares.

Additionally, we identified instances of recognitional, and more precisely hermeneutical injustice, a concept within Fricker's (2007) broader framework of epistemic injustice. Participants felt that they were not trusted or recognized as knowledgeable about, for example, the barriers to obtaining a disabled parking permit. They perceived that their presence in the invited spaces was valued more for meeting diversity quotas than for contributing substantive knowledge. This example illustrates that, although invited spaces are intended to gather local knowledge to promote mobility justice, participants were often seen as advocating personal interests, likely influenced by the prejudices of those in positions of power. In other words, structurally disadvantaged people seem to feel powerless in the existing invited spaces as well as in relation to the initiating actors. The discourse room of the focus group discussions, however, has appeared as a place where people perceived that their lived expertise is acknowledged.

Critical reflections

Despite attempts to foreground structurally disadvantaged people in participatory planning approaches for just mobility transitions, it is crucial to critically reflect on the research itself. Reflexivity involves continually questioning both the methods and the interpretations to avoid

perpetuating mobility injustice. Lindberg et al. (2024) further emphasize the need for epistemic reflexivity, not only to prevent the reinforcement of biases but also to open up new perspectives and possibilities for inclusive and responsive mobilities research. This includes not only one's practices but also shared understandings.

First, throughout the research, we struggled to bridge the gap between the lived expertise of our participants and academic inquiry. Although we aimed to prioritize the lived expertise of structurally disadvantaged groups and made efforts to validate our findings with the focus groups by asking participants whether our interpretations were in line with their expertise (see method section) and giving feedback, we may not have fully captured the issues most pertinent to the groups as we were still setting the research framework (Rashid 2022). A co-designed research approach could provide a better understanding of lived expertise.

In addition, as non-disabled researchers without a migration background and not speaking Turkish, Kurdish or Arabic, we found ourselves in a double position of 'scientific' and 'project expert', as well as facilitators of the research settings themselves. This dual positioning posed limitations on our ability to translate those 'good' intentions, which is particularly problematic when inequality, trauma, mistrust and fear are at play, as our participants have been and continue to be confronted with discrimination and fear of neighbourhood developments. Thus, they were very emotional about the issue of participation and the mobility transition. This observation is what Rashid (2022) explains as fragility which leads to dwindling trust in public authority and could translate to resistance towards their opinions and proposals.

Nevertheless, the fact that the focus group discussions were perceived as a space for participation, where participants felt welcomed and acknowledged, illustrates that the transdisciplinary approach of the Graefekiez project can have a 'catalytic' function for sustainability transitions (e.g. Renn 2021; Scholz 2017). The participants realised, even more than we researchers who often remained true to our disciplinary and scientific approach of the format, that the focus groups could function as a discourse space of power for them and that these research formats are also a way to bring their lived expertise to the decision makers.

Conclusion

In this article, we discussed that lived expertise, especially of the structurally disadvantaged, is important for participatory transport planning in sustainability transitions in order to prevent the reproduction of societal and transport injustices through the transition itself. We note that the current design of participatory planning approaches with a focus on invited spaces has embedded not only individual but more structural barriers that undermine or limit the potential of society-centric planning approaches for mobility justice. While the case study is not perfectly generalizable to other transport planning approaches or redesign projects, our findings reinforce ongoing research on justice issues in transition processes. We emphasized the importance of including rarely heard voices and addressing power dynamics – not just within transition processes, but also within transition research. This highlights the need for co-designed research approaches.

Notes

1. Gaventa defines 'claimed or created spaces' as those where people gather to discuss, debate, and resist. When referring to these creative spaces initiated by social movement, community groups or organic spaces, other authors as for example Miraftab (2004) speak of 'invented spaces'.
2. The district has been governed by the green party since 2006. This voting pattern was confirmed at the last local elections in early 2023 and the next elections will be in 2026 (Amt für Statistik Berlin-Brandenburg 2023).

3. The project can be classified as a real-world laboratory which can be defined as "spatially confined, purposeful experimental settings aimed at testing and demonstrating the viability and scalability of new sociotechnical orders and associated forms of governance based on particular visions of desirable futures" (Engels, Wentland, and Pfotenhauer 2019, 3).
4. Real-world laboratories aim at creating knowledge with and for society-meaning they aim to incorporate the knowledge and the decisions of the citizens to create "socially robust knowledge" (Nowotny 2003). This means that participation is seen as a viable characteristic of the project.
5. Berne et al. (2018), within their disability justice Framework, underline the need for identity first rather than person first language.
6. After the long recruitment process, we decided to compress both rounds i.) and ii.) into one for the second group. Additionally, in the third round iii.) none of the participants from the first round were able to come. Therefore, we presented the results at another weekly women's breakfast and discussed the results in a more informal setting.
7. All direct quotations have been directly translated from German into English by the authors. Despite our best efforts to accurately translate the quotations, the possibility of a bias in translation cannot be entirely eliminated.

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Ethical statement

This research project was approved by the Ethics Committee of the Berlin Social Science Center (WZB) No. 2023/09/212. Informed consent was obtained from all participants.

Disclosure statement

The authors declare no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

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